

DaimlerChrysler AG

Patent claims

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1. A safety device for a vehicle (2), in particular
for a motor vehicle, for reducing the risk of
injury to a vehicle occupant in the event of
10 lateral impact accidents, having at least one
cushion element (32, 34) which is arranged on the
vehicle (2) laterally adjacent to an occupant
position and can be moved by an actuating device
(40) from a rest position into a deployed position
15 in the direction of the occupant position, it
being possible for the actuating device (40) to be
driven by a vehicle-mounted drive (46),
characterized
in that the vehicle-mounted drive (46) is embodied
20 as an electric motor.

2. The safety device as claimed in claim 1,
characterized
in that the cushion element (32, 34) is arranged
25 in or on a door (8) or in or on a body pillar (6)
of the vehicle (2).

3. The safety device as claimed in claim 1 or 2,
characterized
30 in that a plurality of cushion elements (32, 34)
and/or additional foam elements (18, 26, 28, 30)
which are arranged in series are provided.

4. The safety device as claimed in at least one of
35 the preceding claims,
characterized

in that the cushion elements (32, 34) and/or the foam elements (18, 26, 28, 30) are arranged such that they can be displaced with respect to one another.

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5. The safety device as claimed in at least one of the preceding claims, characterized

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in that the cushion elements (32, 34) and/or the foam elements (18, 26, 28, 30) are at least indirectly guided by linear guides (60).

6. The safety device as claimed in at least one of the preceding claims,

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characterized

in that the cushion element (32, 34) can be locked in a deployed position.

7. The safety device as claimed in at least one of the preceding claims,

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characterized

in that the actuating device (40) has a traction means (42) which is embodied as a cable or belt.

8. The safety device as claimed in claim 7, characterized

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in that the traction means (42) is stored, at least in sections, in or on a store (44).

9. The safety device as claimed in claim 8, characterized

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in that the traction means (42) can be wound in or onto the store (44), and in that the store (44) can be driven by the vehicle-mounted drive (46).

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10. The safety device as claimed in at least one of

- the preceding claims,
characterized
in that an auxiliary drive is provided for moving
the cushion element (32, 34) in the direction of
the occupant position.
11. The safety device as claimed in claim 10,
characterized
in that the auxiliary drive is formed by a spring
store and/or pyrotechnic elements.
12. The safety device as claimed in at least one of
the preceding claims,
characterized
in that the vehicle-mounted drive (46) and/or the
auxiliary drive are/is coupled to sensors for
detecting the vehicle state and/or the state of
the vehicle's surroundings.
13. The safety device as claimed in at least one of
the preceding claims,
characterized
in that at least one return element (58) is
provided for moving the at least one cushion
element from a deployed position into the rest
position.
14. The safety device as claimed in claim 13,
characterized
in that the return element (58) is formed by at
least one tension spring.
15. Method for operating a safety device, in
particular as claimed in one of the preceding
claims, in particular for a motor vehicle for
reducing the risk of injury to a vehicle occupant

5 in the event of later impact accidents, having at
least one cushion element (32, 34) which is
arranged on the vehicle (2) laterally adjacent to
an occupant position and can be moved by an
actuating device (40) from a rest position into a
deployed position in the direction of the occupant
position,
characterized
10 in that the actuating device (40) is driven by an
electric motor.